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HOMEMAKERS' CHAT

TUESDAY, October 11, 1938

(FOR BROADCAST USE ONLY)

SUBJECT: "QUESTIONS AND ANSWERS." Information from the Office of Experiment Stations, United States Department of Agriculture.

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As you might expect at this time of year, your Aunt Sammy's mailbag has been filled up and running over with juice questions. The cider presses must be busy these days. And many listeners report that they are putting up grape juice, tomato juice, even sauerkraut juice. If you don't believe this is a nation of fruit-drinkers, you should read this mail. Or read the figures on juice production. We Americans drink over 100 million gallons of canned and bottled juice a year. And that's not counting the fresh juice--breakfast orange juice and fall cider and so on.

Dr. Tressler of the New York State Experiment Station estimates that well over a million tons of fruits and vegetables go into juice each year. And our juice appetite is increasing. Why, up to a few years ago the only juices of commercial importance were apple juice or cider, orange juice and grape juice. Grape juice was the only one of the three that could be preserved properly. And now look--look at the cans of tomato, pineapple, and grapefruit juice on the grocer's shelves. And notice the newer juices coming into favor--cherry, cranberry, prune, sauerkraut and papaya. Scientists at the various State experiment stations are hard at work studying new juice possibilities. New York workers have been investigating rhubarb, cherry, berry and peach juice while across in California they've been working on apricot, plum, red and white California grape juices as well as many new berry juices.

But there. Let's get at the questions--and the replies which come from scientists at the various experiment stations.

First question: "Why do directions for preserving fruit juices always advise sterilizing by pasteurizing instead of just plain boiling?"

Answer: Because the less heat you use, the more of the natural color and flavor you save. Since pasteurizing or heating just below the boiling point will sterilize fruit juices, there is no advantage in using the higher heat of boiling.

Second question: "Why do fruit-juice canners often remove air from fruit juices before heating them?"

Answer: To save as much of the natural color, flavor and incidentally vitamin C as possible. Dr. Tressler says: The cardinal principles of preserving fruit or vegetable juice by heat are, first, to avoid as nearly as possible contact of the juice with air, and, second, to apply only enough heat and for only as brief a time as necessary to sterilize the juice. Because contact with air, especially during heating, causes what the chemists call oxidation, and because this oxidation affects color, flavor and vitamin C, many commercially preserved juices now have all juice driven out and are pasteurized and packed in a vacuum.

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Here's a grape juice question: "How can I put up grape juice without having hard gritty substances in it?"

Answer: Since grapes contain crude cream of tartar, this is sure to settle out into the juice as the juice stands in storage. So New York workers advise keeping the sealed and pasteurized bottles of juice in a cool cellar or in some other cool dry place for several months and then straining out these crystals.

Briefly, here are the New York State steps for making and preserving juice from Concord--or similar varieties of grapes: First, heat the grapes until the purplish red of the skins flows out; then, strain the juice through cloth; heat the juice to pasteurizing temperature; store it in sterilized sealed jars for 3 to 6 months until the tartrate crystals form and settle; strain the juice and pasteurize it again; pour it hot into sterilized bottles; seal and pasteurize the bottles for 20 minutes in a hot-water bath.

Now to answer the listener who asks about putting up sauerkraut juice. Sauerkraut juice is difficult to preserve because it changes in flavor so easily. Too long heating or too high a heat will give it a cooked flavor. Fortunately, it will keep if pasteurized at 160 degrees--simmering temperature of water. Sauerkraut juice is a by-product of kraut--comes from the fermentation tank when the kraut is taken out. First, strain it through a metal screen or cloth. Then warm and pour it into sterilized cans. Pasteurize the cans by heating half an hour at 160 degrees F. Kraut juice keeps better in tin cans than in bottles because light makes it deteriorate fast.

Last question; this one about cider: "What is the best method for preserving cider?"

The Massachusetts Station workers say that freezing is the best method. If cider is frozen solid in closed containers and held at a temperature of 10 degrees Fahrenheit or lower, it will keep from one season to the next with no change in flavor or vitamin content. The next best method of preserving cider is bottling and pasteurizing. Most of the cider manufactured in this country is sold in the fall and early winter either in the fresh untreated condition or preserved by benzoate of soda. Benzoated cider will keep for a few days at room temperature. Fresh untreated cider will keep several weeks if it is stored just above the freezing point, and it will keep better if it is chilled immediately after pressing.

